



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,175	10/14/2003	Adam C. Bennett	GP-304210	3797

7590 08/24/2005
 Leslie Hodges
 General Motors Corporation
 Legal Staff, Mail Code: 482-C23-B21
 P.O. Box 300
 Detroit, MI 48265-3000

EXAMINER

TRAN, DALENA

ART UNIT	PAPER NUMBER
----------	--------------

3661

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,175

Applicant(s)

BENNETT ET AL.

Examiner

Dalena Tran

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-13 and 23-27 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/14/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Notice to Applicant(s)

1. This office action is responsive to the amendment filed on 6/15/05. As per request, claims 1-3, 7 have been amended. Claims 14-22 have been cancelled. Thus, Claims 1-13, and 23-27 are pending.

The prior art submitted on 10/14/03 has been considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, and 14-22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. (6,721,637) in view of Urban et al. (5,704,440), and Frank (5,842,534).

As per claim 1, Abe et al. disclose a method of providing a silent mode of operation for a hybrid electric vehicle having a rechargeable energy storage system (ESS), comprising steps: transmitting a silent mode initiation request to a silent mode controller (see at least columns 6-7, lines 52-3), comparing an actual value of at least one state parameter of the ESS that is indicate of the availability of the ESS for implementing the silent mode to at least one silent mode initiation limit value associated with the actual value, wherein if the actual value of the at least one state parameter compared to the associated at least one mode initiation limit value indicates that the silent mode is allowed, the method proceeds to step (3), and wherein if the actual value of the at least one state parameter indicates that the silent mode is not allowed, step (2) is

Art Unit: 3661

repeated so long as the silent mode initiation request is being transmitted, and transmitting a silent mode activating request to the silent mode controller (see at least column 7, lines 4-38), operating the vehicle in the silent mode using the silent mode controller, comprising designating an electric drive motor as a primary source of propulsion energy for the vehicle and designating an engine as a secondary source of the propulsion energy for the vehicle (see at least column 1, lines 21-54; and column 3, lines 41-59), and terminating the silent mode in response to the occurrence of a mode termination event (see at least column 7, lines 39-52). Abe et al. do not disclose manual transmitting of the silent mode initiation request by a vehicle operator.

However, Urban et al. disclose manual transmitting of the silent mode initiation request by a vehicle operator (see columns 6-7, lines 50-12). Abe et al. also do not disclose modal quantity of energy is used to make up the difference between the modal quantity of energy and a total vehicle propulsion energy. However, Frank discloses a modal quantity of energy in the ESS is allocated for use by the electric drive motor during the silent mode and the engine is used to make up the difference between the modal quantity of energy and a total vehicle propulsion energy requirement during the silent mode (see at least the abstract; column 3, lines 35-60; columns 5-6, lines 54-10; and columns 6-8, lines 59-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Abe et al. by combining manual transmitting of the silent mode initiation request by a vehicle operator, and modal quantity of energy is used to make up the difference between the modal quantity of energy and a total vehicle propulsion energy to provide appropriate energy power for the vehicle to provide maximizing efficiency and minimizing harmful pollutants depending upon the driving conditions encountered by the driver and any time the driver desired.

Art Unit: 3661

4. Claims 2-13, and 23-27, are allowable.

Remarks

5. Applicant's argument filed on 6/15/05 has been fully considered. Upon updated search, the new ground of rejection has been set forth as above.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-F 6:30 AM-4:00 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Dalena Tran



August 18, 2005